ENTOMOLOGY.—*Concerning Neotropical Tingitidae (Hemiptera).*[1] C. J. Drake and E. J. Hambleton, Iowa State College.

This paper contains the descriptions of 2 new genera, 15 new species, and 1 new variety and notes on a number of other species of lace bugs from Neotropical regions. The specimens were collected largely by the junior author. The types are in the Drake collection.

Subfamily Cantacaderinae

Phatnoma amazonica, n. sp.

Closely allied to *P. marmorata* Champion but readily distinguishable by the nonannulate femora, nearly uniform brownish color, shorter and more ovate form, the apical portion of foliaceous nervure separating discoidal and subcostal areas without a blackened area; costal area also one row of areolae wider; oblique, adventitious nervures of discoidal and subcostal areas much less prominent and not differently colored; head slender. Other characters very similar to *P. marmorata.*

Length, 3.30 mm; width, 1.25 mm.

Type (female), Pará, Brazil.

In *P. marmorata,* the veinlets dividing the areolae of the foliaceous nervures delimiting the discoidal area are infuscate. The entire insect is quite marmorate in general appearance, whereas *amazonica* is almost uniform in color.

Phatnoma marmorata Champion

Known from Panama, Honduras, and Brazil and recorded from the cocoa bean. One specimen from Trinidad, B. W. I., was taken on cultivated pineapple, May 25, 1934, by Dr. A. M. Adamson.

Stenocader, n. gen.

Obovate, more convex above in long- than short-winged form. Head very long, rather broad, tumid above, with two pairs of spines in front of eyes; bucculae long, reticulated, meeting a little before apex of head. Antennae long, slender, smooth; segments I and II short, together not reaching apex of head, the former slightly longer and stouter; III very long, very slender, often longer in male than female; IV rather short, moderately thickened. Rostrum extremely long, extending considerably on base of abdomen; rostral channel distinct, the laminae raised and subparallel, the venter strongly impressed along median line of basal half so as to form a distinct groove for the reception of rostrum. Eyes set close to pronotum.

Pronotum narrowed anteriorly, subtruncate in front, pitted, with five carinae, the outer or lateral pair short, the middle pair interrupted at base of collar, hind margin of pronotum not strongly produced, subtruncate or slightly convex; scutellum small, exposed. Paranota narrow, only slightly reflexed, the outer margin serrate, somewhat toothed. Elytra divided into the usual areas, the discoidal and subcostal areas with raised transverse nervures, the clavus distinct, within meeting in a straight line; elytra more strongly overlapping apically in long- than short-winged form when in repose, much more convex above in short-winged form, the outer margin of costal area granulated or toothed; wings much longer than abdomen in long-winged specimens.

Type of genus, *Piesma tingidoides* Spinola from Chile.

The discoidal area is very long, extending more than three-fourths of the total length of elytra. The males are distinctly slenderer than the females and also have a little longer antennae. *Stenocader* differs from *Nectocader* Drake in not having the elytra very much more widely and abruptly expanded at the base, and the costal area is without a row of large marginal areolae distinctly set off within by a thickened nervure so as to form practically another area. The rostrum is longer in *Nectocader,* and there is no median furrow on base of venter for the rostrum in repose. In the genus *Cantacader* Amyot and Serville, the scutellum is concealed, being covered completely by the hind margin of pronotum.

Stenocader tingidoides (Spinola)

Piesma tingidoides Spinola, *in* Gay, Hist. Chile, Zool. 7: 200. 1852; Signoret, Ann. Soc. Ent. France, 1863: 575.

Cantacader tingidoides Reed, Rev. Chil. Hist. Nat. 4: 179. 1902 (reprint, p. 86).

Cantacader? germaini Signoret, Ann. Soc. Ent. France, 1863: 586; Reed, Rev. Chil. Hist. Nat. 4: 179. 1902 (reprint, p. 86).

Nectocader tingidoides Drake, Iowa State Coll. Journ. Sci. 3: 42. 1928; Rev. Ent. 10: 322.

[1] Received December 23, 1943.

1939; Drake and Poor, Iowa State Journ. Sci. **10**: 383. 1936.
Nectocader germaini Drake, Iowa State Coll. Journ. Sci. **3**: 41. 1928.

Many examples from Chile. The longer antennae of male, and the marked difference between long- and short-winged forms, together with color variations account for the above synonymy.

Genus **Eocader** Drake and Hambleton, 1934

Montea Bruner, 1940.

Haplotype, *Eocader vegrandis* Drake and Hambleton.

In this genus the paranota are uni- or triseriate, the lateral carinae sometimes being distinct or more or less obsolete in specimens of the same species. Only two species are known. The genus *Montea* Bruner is identical with *Eocader*. Long- and short-winged specimens of both species have been examined.

Eocader vegrandis Drake and Hambleton

Eocader vegrandis Drake and Hambleton, Rev. Ent. **4**: 436, fig. 1. 1934.

Originally described from a brachypterous female, Viçosa, Minas Geraes, on the fruit of *Bombax monguba* Mart. Zucc., an imported tree; allotype (male) and several other examples taken on mongubeira, Jardin Botanico, Rio de Janeiro, A. A. Silva. The lateral carinae are often wanting or only faintly indicated in apterous individuals.

In a macropterous specimen the lateral carinae are sharply raised, very distinct and scarcely bent inward in front. The elytra are long, extending considerably beyond apex of abdomen, and overlap at apex; the costal area is triseriate in widest part near base and uniseriate distally. The color of the elytra is testaceous, with the nervures bounding discoidal and the oblique adventitious nervelets of subcostal and discoidal areas dark fuscous. The wings are nearly as long as the elytra. The length is 2.55 mm, the width, 1.20 mm.

Subfamily Tingitinae

Monanthia berryi Drake

Through an error and misunderstanding of locality label, this insect was wrongly described from Uruguay. The locality label should read, Chanchaqui, Perú, August 21, 1942, P. A. Berry. Since the original description was published, 10 additional specimens have been received from Perú. Not recorded elsewhere.

Teleonemia lanceolata (Walker)

Monanthia lanceolata Walker, Cat. Hemiptera Brit. Mus. **6**: 194. 1873.
Teleonemia albomarginata Champion, Biol. Centr.-Amer. Rhynch. **2**: 43. pl. 3, figs. 18, 18a. 1898.
Teleonemia spectabilis Drake, Ann. Mag. Nat. Hist. (10) **8**: 226. 1931.
Teleonemia dispersa Drake, Ann. Mag. Nat. Hist. (10) **8**: 227. figs. 1, 1a. 1931.
Teleonemia albomarginata Monte, Arq. Inst. Biol. **11**: 298. 1940; Rev. Bras. Biol. **3**: 107. 1943.
Teleonemia lanceolata Drake and Hambleton, Arq. Inst. Biol. **9**: 52. 1938; Drake and Poor, An. Mus. Cien. Nat. **40**: 299. 1942.

As the original descriptions of *Monanthia lanceolata* Walker (1873) and *Teleonemia albomarginata* Champion (1897) agree and the two names apply equally well to the same species, Drake and Hambleton (1938) and Drake and Poor (1942) correctly placed the latter name in synonymy. According to W. E. China, the Walker type of *lanceolata* seems to have been lost and can not be located in the British Museum. The writers have carefully studied very long series of *lanceolata* (Walker) from Brazil, Paraguay, Argentina, Perú, Venezuela, Colombia, several Central American countries, and the West Indies. Specimens vary somewhat in size, color, lateral expansions of paranota and elytra, and the height of median carina. The original description and figure of *albomarginata* by Champion are excellent.

The statements of Monte (1941, 1943) are entirely inept and based upon his opinion rather than a careful study of specimens and original descriptions. His conclusions are entirely erroneous, and the name *albomarginata* Champion will have to be suppressed as a synonym of *lanceolata* (Walker).

Teleonemia quechua Monte

Nine specimens, Satipo, April 12, 1941; 1 specimen, Challanga; 1 specimen, Vilcanoto; 2 examples, Coroico; and 12 specimens, Cañete, Perú, Edson J. Hambleton. One specimen, Villa Vicenzio, Colombia, 1898, O. Burger. In this species there is some variation in color and length of antennae. The antennae are long, moderately stout, and rather densely clothed with very short recumbent hairs; proportions

I:10, II:8, III:115, IV:40. The male tends to be a little smaller than the female. The carinae are sharply raised, thick, foliaceous, the lateral pair being slightly concave within in front.

Teleonemia absimilis, n. sp.

Elongate, broad, fuscous-brown, the paranota, costal and most of subcostal areas, collar, and raised anterior portion of median carina whitish testaceous. Appendages ferrugineous. Hind spines of head adpressed, not reaching anterior margins of eyes, the median and frontal spines short. Rostrum extending to middle of metasternum; rostral channel widening posteriorly, open behind at the middle the laminae testaceous, concave within on metasternum. Body beneath dark ferrugineous, the hind margins of abdominal segments darkened.

Pronotum moderately convex, coarsely pitted, with foliaceous carinae, each uniseriate, the lateral more widely separated and concave within in front, the median elevated in front so as to form a small rooflike hood, subtruncate in front; paranota rather narrow, uniseriate, strongly reflexed slightly wider in front. Elytra slightly widening posteriorly, very slightly constricted beyond middle, together rounded behind when in repose; costal area moderately wide, slightly reflexed along basal portion, the areolae moderately large, hyaline; subcostal area narrow, uniseriate, somewhat testaceous; discoidal area large, narrowed at base and apex, widest a little in front of middle, there six areolae deep, the inner boundary more raised; sutural area large, the veinlets (also of discoidal) only slightly raised, the areolae and veinlets embrowned.

Length, 5.60 mm; width, 1.80 mm.

Type (female), Villa Vicenzio, Colombia, January 1, 1898, Prof. O. Burger, collector.

This species is smooth, somewhat reddish brown, with very pale testaceous margins.The whitish testaceous color of costal area extends to the apex of elytra and is not interrupted behind as in *lanceolata* (Walker).

Teleonemia altilis, n. sp.

Very similar in general appearance and color to *T. molina* Drake but easily distinguished by its smaller size, shorter rostrum, wider costal area and thinner carinae. Rostrum extending a little beyond middle of mesosternum; rostral laminae brownish, thinner and not as widely separated as in *molina*. Head with five rather short, yellowish-brown spines, the three frontal shorter. Carinae uniseriate, the lateral pair slightly concave within in front. Costal area whitish testaceous, uniseriate, the areolae clear, widest opposite apex of discoidal area, there on one side with two extra areolae; subcostal area narrow, uniseriate. Paranota, hood and median carina testaceous. Appendages black-ferrugineous.

Length, 4.70 mm; width, 2.40 mm.

Type (female), Las Juntas, Bolivia. Collected by Steinbach. Separated from *T. prolixa* Stål and varieties by the wider costal area.

Teleonemia inops, n. sp.

Brownish, with some areas infuscate. Head with five spines, the hind pair longer, adpressed, the median and fore pair shorter, directed forward. Antennae ferrugineous-brown, moderately long, shortly pilose; segment III approximately two and one-half times the length of IV; I and II short, the latter smaller. Rostrum reaching near the base of mesosternum; laminae very low, widely separated on metasternum, open behind. Legs fuscous-brown, rather slender. Body beneath dark ferrugineous.

Pronotum dark brown, sharply tricarinate, each carinae uniseriate and with veinlets dividing cells fuscous, the lateral carinae more widely separated, slightly convex within in front; median carina moderately raised in front so as to form a small, rooflike hood, slightly projecting in front; paranota narrow, reflexed, uniseriate, the areolae small. Elytra considerably infuscated, mostly dark brown, the costal area (also paranota, carinae, and collar lighter in color) mostly testaceous; costal area narrow, uniseriate, slightly reflexed along basal portion, the areolae small and clear; subcostal area narrow, uniseriate; discoidal area large, widest near middle, there five areolae deep; sutural and discoidal areas rather widely areolated, the areolae opaque, brown to fuscous, the veinlets not prominent.

Length, 4.55 mm; width, 1.35 mm.

Type (male), La Ceiba, Honduras.

Separated from *T. notata* Champion by the longer antennae, less convex pronotum and wider costal area. It is a little larger than *T. scrupulosa* Stål and the discoidal area is glabrous.

Teleonemia sandersi, n. sp.

Moderately large, mostly dark fuscous, the paranota and costal areas testaceous, some of the transverse veinlets infuscate, the head and pronotum often covered with whitish exudation. Head black, with five stout, moderately long, testaceous spines, the hind pair adpressed, the median directed forward, the front pair curved inward. Rostrum extending to meso- and metasternal suture; laminae thick, testaceous, concave within on meso- and metasternum, more widely separated on metasternum, open behind. Body beneath blackish ferrugineous. Appendages dark ferrugineous, the last antennal segment black. Antennae moderately long, rather densely clothed with short, decumbent hairs; segment I thicker and a little longer than II; III slightly bent, slightly more than twice as long as IV.

Pronotum moderately convex, pitted, sharply tricarinate, each carinae uniseriate, the lateral carinae distinctly diverging anteriorly. Median carina in front and collar raised so as to form a rooflike hood, the anterior margin slightly produced. Paranota narrow, strongly reflexed, testaceous, uniseriate, the areolae moderately large; subcostal area narrow, uniseriate; discoidal area impressed, widest near middle, there five aerolae deep, the areolae rather large; sutural area rather widely reticulated, the areolae becoming larger posteriorly.

Length, 4.78 mm; width, 1.25 mm.

Type (male), Canal Zone, Panama, February 10, 1935, C. H. Richardson; allotype (female), Olhajuela, Canal Zone, February 11, 1921, J. G. Sanders; paratype, Canal Zone, Panama, taken with type.

Named in honor of Prof. J. G. Sanders, who kindly presented us the first example of the species. The sharply raised carinae, raised boundary of discoidal area and raised veinlets of elytra give this insect a striking appearance. The rostral laminae are higher and not so widely separated on metasternum as in *T. altilis;* the pronotum is also more convex and the veinlets of areas of elytra more raised and prominent.

Teleonemia vulsa, n. sp.

Resembling *T. leitei* Drake and Hambleton but with longer antennae, wider costal area, narrower subcostal area and differently colored appendages. Head brown, with five blunt, testaceous spines, the hind pair longer and adpressed. Eyes black. Antennae moderately long, brownish ferrugineous, indistinctly pilose; segment I stouter and longer than II; III long, slightly bent, a little more than three times as long as IV; IV longer than the first two conjoined, blackish.

Pronotum moderately convex, distinctly pitted, brown; paranota narrow, distinct, slightly wider in front, the areolae indistinct; carinae sharply elevated, the areolae distinct; lateral carinae distinctly more widely separated in front, there concave within; median carina and collar raised in front so as to form a rather long, small, rooflike hood, slightly produced in front. Elytra widest near middle, slightly constricted beyond middle, brown, paler along margins; costal area rather narrow, uniseriate, the areolae hyaline and moderately large; subcostal area scarcely wider, biseriate; discoidal area large, narrowed at base and apex, widest a little before middle, there five areolae deep, the areolae rather large; sutural area more widely reticulated, considerably infuscated. Legs dark brown. Rostrum not quite extending to base of mesosternum; laminae testaceous, parallel, more widely separated on metasternum, entirely open behind.

Length, 4.90 mm; width, 1.25 mm.

Type (male), allotype (female), and two paratypes, Chapada, Brazil.

Teleonemia scrupulosa Stål

This species is widely distributed in Mexico, Central America, West Indies, and South America. It has not been recorded from Chile. A number of years ago the species was introduced into the Hawaiian Islands, Fiji, and Australia for the purpose of controlling the weed *Lantana.* The insect has flourished in these countries.

Drake and Frick (Proc. Haw. Ent. Soc. 10: 201. 1939) treat *T. haytiensis* Drake as a variety of *scrupulosa.* This conclusion was based on a study of the type of *haytiensis,* cotype and an extremely long series of specimens of *scrupulosa* from South and Central America, West Indies, Mexico, United States, and islands of the Pacific. The antennal characters seem to warrant the varietal name *haytiensis.* Certain specimens from Texas, which have been ten-

tatively identified as *scrupulosa*, need further study and may perhaps represent another variety or even a distinct species. Monte (Papeis Avulsos Dept. Zool. São Paulo 2: 103. 1942) erroneously treated *haytiensis* as a synonym of *scrupulosa*. His conclusions are not based on an examination of the type or material from the type locality; *scrupulosa* has been much confused in the literature.

Pachycysta diaphana Champion

One example, Surukun, Venezuela, November, 1940, collected by P. Anduzee. Two other examples are at hand from the Amazon region of Brazil. The type locality is "Amazona."

Amblystira pallipes (Stål)

A series of examples, Surukun, Venezuela, November, 1940, taken by P. Anduzee. Many specimens have been studied from Brazil and Colombia. Taken in numbers on Sapindaceae, São Paulo, Brazil, 1934, by Edson J. Hambleton.

Corycera comptula Drake

Five specimens, Campinas, São Paulo, Brazil, April 18, 1937, Edson J. Hambleton. The type locality is Chapada, Matto Grosso.

Corycera juncta, n. sp.

Very much like *C. separata* Drake and Hambleton but separated from it by the longer first antennal segment, testaceous paranota, rostral laminae not so widely separated on metasternum, lateral carinae of pronotum slightly less raised on disc and all carinae are thicker and more elevated on hind triangular process. Head with hind pair of spines brownish, stout, blunt, adpressed, extending as far forward as front margins of eyes; median spine wanting; front pair short, brownish, turned inward. Rostrum extending on base of mesosternum. Costal area moderately broad, whitish testaceous, biseriate in widest part, the areolae clear and moderately large. Legs pale testaceous, the tarsi a little darker. Antennae long, slender, indistincty hairy; segment I very stout, moderately long, black-fuscous; II short, slender, testaceous; III very long, testaceous; IV slightly thickened, mostly blackish, pale at base.

Length, 2.60 mm; width, 1.05 mm.

Type (female), São Paulo, Brazil, May 22, 1935, E. J. Hambleton.

Amblystira scita, n. sp.

Similar in appearance to *A. socia* Drake but easily separated from it by the slightly more raised lateral carinae and the somewhat rounded and not sharply raised apex of discoidal area. Pronotum black, somewhat shiny, pitted, the lateral carinae slightly divaricating anteriorly. Elytra blackish, the widest or biseriate portion of costal area testaceous, the areolae of sutural area somewhat whitish. Antennae testaceous, most of terminal segment black. Other characters very similar to *A. socia*.

Type (female), and paratype, Mercedes, Costa Rica, August 5, 1928.

In *A. socia*, the apical angle of the discoidal area is sharply raised, acutely angulate, and the hind margin straight; the subcostal area is also wider. Otherwise, except for the lateral carinae, the two species are very similar in appearance.

Atheas placentis Drake and Poor

Five specimens, São Paulo, February 2, 1935, collected by E. J. Hambleton. Reported by Monte as occurring on *Celtis brasiliensis* Gardn.

Atheas laetantis, n. sp.

Head black, without spines. Bucculae testaceous, closed in front. Rostrum brownish, black at apex, extending on mesosternum. Body beneath black. Antennae moderately long, slender; segment I black, slightly stouter and nearly three times as long as II; II short, blackish; III testaceous, slenderest, slightly more than three times as long as IV, indistinctly hairy; IV rather long, almost wholly black, slightly thickened, with longer, pale hairs. Antenniferous tubercles rather long, conelike, nearly straight, becoming testaceous apically. Eyes black. Legs slender, testaceous, the tarsi darkened.

Pronotum moderately convex, pitted, brownish black, sharply tricarinate, each carinae with a row of tiny areolae, the lateral pair parallel; collar distinct, dark brown, testaceous in front. Paranota rather narrow, wider in front, uniseriate opposite humeral angles, biseriate in front, the outer margin nearly straight, the areolae hyaline and moderately large. Elytra with all discoidal and subcostal areas and basal portion of sutural areas fuscous-black, the rest pale testaceous, the areolae hyaline; costal area

rather broad, mostly biseriate, triseriate in widest part, the areolae large, arranged in somewhat irregular rows; subcostal area narrow, mostly biseriate; discoidal area reaching a little beyond middle of elytra, narrowed at base and apex; sutural area mostly widely reticulated.

Length, 2.55 mm; width, 1.10 mm.

Type (male), allotype (female), and 32 paratypes, Viçosa, Minas Geraes, Brazil, April 29, 1934, on *Machaerium angustifolium* Vog. and *Machaerium* sp., by Edson J. Hambleton.

This species may be separated from *A. flavipes* Champion by the more rounded outer margins of elytra, the wider costal area, and the shorter first and testaceous third antennal segments.

Tigava lonchocarpa, n. sp.

Allied to *T. cassiae* Drake and Hambleton but distinguished by the thinner and less elevated carinae and the narrower paranota and elytra. Head brownish, the spines testaceous; hind pair of spines long, adpressed, extending beyond front margin of eyes; median spine stout, blunt, directed forward, the anterior pair atrophied. Antennae long, indistinctly pilose; segment I long, stout, constricted before apex, slightly more than three times the length of II, blackish fuscous; II short, concolorous with I; III testaceous, two and a half times as long as IV; IV slightly thickened, clothed with pale hairs, black, the basal portion testaceous. Rostrum extending to middle of mesosternum, brownish, dark at apex; laminae testaceous, constricted on mesosternum, very broad and cordate on metasternum, closed behind. Legs slender, yellowish brown. Body beneath black.

Pronotum grayish brown, moderately convex, finely pitted, tricarinate, all carinae indistinctly areolate; paranota rather narrow, uniseriate behind, biseriate in front, testaceous, the areolae rather small and clear; calli impressed, black; collar raised, narrow, testaceous, areolate; triangular process areolate, lighter in color. Elytra brownish, becoming fuscous within, the marginal area testaceous with clear areolae; costal area moderately wide, biseriate, the outer row a little smaller, subcostal area narrower, biseriate; discoidal area narrowed at base and apex, widest near middle, there four or five areolae deep; sutural area becoming more widely reticulated posteriorly.

Length, 3.85 mm; width, 1.05 mm.

Type (female) and allotype (male) and three paratypes, Viçosa, Minas Geraes, Brazil, May 6, 1934, taken on *Lonchocarpus* sp. by E. J. Hambleton.

T. sesoris Drake and Hambleton is a smaller species with shorter basal segment of antennae.

Campylotingis snipesi, n. sp.

Elongate, slender, brownish, the costal area testaceous, with some of the transverse veinlets fuscous. Head brown, with five moderately long spines, the median arising from a slightly raised area, porrect and dark fuscous, the hind pair adpressed. Rostrum extending between fore legs, the channel strongly constricted on mesosternum, rather wide and closed behind. Body beneath black. Legs long, slender, testaceous. Antennae long, slender; segment I long, stout, constricted before apex, about four times as long as II; II stout, slenderer, testaceous; III very long, slenderest, testaceous, four times the length of IV; IV black, moderately long, scarcely thickened, clothed with whitish hairs.

Pronotum moderately convex, closely pitted, tricarinate, the lateral carinae subparallel, distinct but not prominent, the median a little more raised; calli impressed, brownish, collar raised, areolate; paranota indistinct opposite humeral angles, in front expanded so as to form a distinct carinalike ridge. Elytra narrow, widely constricted beyond middle, the sutural area infuscate, costal area narrow, yellowish brown, the areolae elongate; subcostal wider, mostly biseriate, triseriate in widest part; discoidal area rather narrow, narrowed at base and apex, widest beyond middle, there three or four areolae deep; sutural area becoming more widely reticulated distally.

Length, 3.50 mm; width, 0.07 mm.

Type (male), Viçosa, Minas Geraes, Brazil, collected by Dr. B. T. Snipes. The very narrow paranota opposite calli (there wider and ridgelike) and collar separate this species from its congeners.

Leptodictya paulana, n. sp.

Akin to *L. austrina* Drake and Hambleton in general appearance and color, but separated from it by the smaller areolae of elytra, narrower form and broader paranota. Head tumid, with extremely long, slender testaceous spines.

Antennae yellowish brown to dark fuscous, long, very slender, segment III two and one-half times as long as IV. Paranota completely overlapping, biseriate above, the upper fold broadly rounded in front and not sharply narrowed posteriorly as in *austrina*. Collar at middle jointly raised in front so as to form a tectiform hood, which is slightly more produced in front than in *austrina*. Rostrum extending on metasternum. Elytra with costal area less iridescent, narrower and more closely reticulated than *austrina*. Male narrower than female. Other characters very similar to *austrina*.

Length, 3.00 mm; width, 1.35 mm.

Type (male), allotype (female), Taquaretinga, São Paulo, Brazil, March, 1939, E. J. Hambleton. Paratypes, two specimens taken with type and one specimen, Campinas, São Paulo, June, 1937, Edson J. Hambleton.

Leptobyrsa steini Stål

This species has been very much confounded in the literature by Monte (Papeis Avulsos Dept. Zool. São Paulo 1: 203–208. 1941). The writers' determinations of *steini* have always been based on one of Stål's cotypes kindly sent to us by the Stockholm Museum more than a decade ago. This confusion has been constant since Monte first attempted to identify species in the genus. The same statement applies equally to *L. baccharidis* Drake and Hambleton. Specimens of *Leptobyrsa* before us determined at various times by Monte as his *L. nigricornis* are typical examples of *L. steini*.

Perhaps some of Monte's confusion may be due to the errors in his illustrations of *steini* and *baccharidis* published in the above mentioned volume. His remarks and criticisms seem to be based to some extent on the illustrations rather than a careful study of his specimens. To illustrate, the hood of *steini* in his illustration is distinctly larger than in Stål's cotype and numerous other specimens of this species at hand from Brazil. The hood in *steini* is much smaller and does not cover the entire head (except eyes) or extend beyond its apex. The length and number of spines on the margins of the paranota and elytra in his illustrations agree with our material.

It is impossible to know what Monte has determined as *L. baccharidis*. In the type, type series, and other specimens we do not have a single specimen of *baccharidis* that agrees with Monte's figure. The hood is not so large, the frontal spines are not so long or nearly so long as the first antennal segment, and the lateral carinae are not composed of two very elongate cells. In our series of specimens of *steini*, *baccharidis*, and other members of *Leptobyrsa* Stål, the individuals of a long series of a species exhibit about the same amount of variation as in a number of other species of lace bugs. It is difficult to understand Monte's statement "Porquano tendo coligido para mais de 300 exemplares do que Drake diz ser *steini*, todos eles, sem exceção de um so, apresentam o mesmo recúo que se ve no desenho." It will be necessary to examine specimens of what Monte has called *L. baccharidis*, *L. steini*, and *L. nigritarsis* before these errors can be rectified.

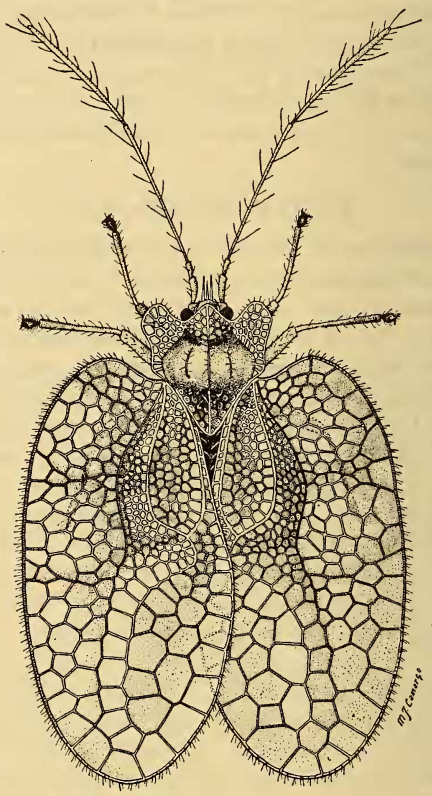

Fig. 1.—*Pleseobyrsa atratarsis*, n. sp.

According to the cotype of *steini* Stål and type of *baccharidis* Drake and Hambleton, the hood of the former is distinctly smaller, and does not entirely cover the head in either form. The margins of the paranota and elytra are clothed with long hairs in *baccharidis* and with

shorter spines in *steini*. The tumid elevations of elytra are also a little higher in *baccharidis*.

Pleseobyrsa atratarsis, n. sp. Fig. 1

Very similar to *P. plicata* (Champion) but differs from it in having black-fuscous tarsi, smaller hood. The lateral carinae are distinct, but present only on the disk. Head with five long, slender, pale, testaceous spines, the hind pair adpressed, extending as far forward as base of front pair of spines. Subcostal and discoidal areas subequal in width, each with five rows of areolae in widest part, the discoidal area considerably elevated. Paranota mostly finely serrate, with a few spines on the anterior margins. Head moderately convex above, brownish; front pair of spines straight, not quite reaching apex of first antennal segment median a little shorter, all three frontal spines directed forward and slightly upward. Other color and other characters very similar to *plicata*.

Length, 3.60 mm; width, 2.70 mm.

Type (female), Poças de Caldas, Minas Geraes, Brazil, Col. O. W. Guilherme, July 1, 1939.

Gargaphia munda Stål

The determinations of *munda* Stål of the writers are based upon a cotype kindly sent us a number of years ago by the Stockholm Museum. Many other specimens are also at hand from the states of Minas Geraes, São Paulo, and Rio de Janeiro, collected by Edson J. Hambleton. Several years ago, Monte kindly sent the senior author specimens under the names of *G. munda* Stål and *G. trichoptera* Stål of what he later described as *brunfelsiae*. This probably accounts for Monte's erroneous statement relative to *munda* in Arq. Inst. Biol. **2**: 295. 1940. Later Monte changed his determination and then distributed what he had wrongly identified as *munda* and *trichoptera* under the label *brunfelsiae*. The latter is a valid name for a good species.

Gargaphia lanei Monte

Gargaphia lanei Monte, Arq. Zool. Estado São Paulo **1**: 376. 1940.
Gargaphia limata Drake and Poor, Rev. Ent. **2**: 228. 1940.
Gargaphia limitata Monte, Arq. Zool. Estado São Paulo **2**: 18. 1940.

According to the dates indicated in the original description, *lanei* Monte appeared on June 27, 1940, and *limata* Drake and Poor on June 28, 1940. If these journals were mailed as indicated, *lanei* Monte has date priority of one day and is the valid name of the species. A study of type material shows that the two names apply to the same species and the name *limata* Drake and Poor must be suppressed.

Gargaphia implicata Drake and Hambleton

Gargaphia concursa implicata Drake and Hambleton, Rev. Ent. **1**: 535. 1940.

After studying a large number of specimens, the authors believe that the narrower, bi- or triseriate, subangulate paranota opposite humeri and the almost uniformly rounded (not distinctly arched) median carina represent specific differences. The hood is also larger and much more inflated than in *concursa* Drake. The subcostal area is either bi- or triseriate. The type is a female and allotype, male. There are 21 paratypes. Other specimens are also before us from Brazil, Paraguay, and Argentina.

Gargaphia nigrinervis impedita, n. var.

Separated from typical *G. nigrinervis* Stål by the distinctly narrower, subrounded angles of paranota opposite humeri. Paranota triseriate in widest part, the areolae large, hyaline. Median carina foliaceous, uniseriate, not distinctly arched, slightly more elevated behind. Color and other characters very much like *nigrinervis*.

Length, 4.20 mm; width, 2.25 mm.

Type (male), Río Frío, Colombia, April 2, 1926.

In *G. nigrinervis* Stål the paranota opposite humeral angles are wider and produced into acute points, there four or five areolae deep. In *G. deceptiva* (Drake) the paranota angles are very similar to *G. nigrinervis* Stål but the median carina is very strongly elevated, strongly arched behind hood, and very much higher than in *impedita* or *nigrinervis*.

Dyspharsa, n. gen.

Head very short, with five spines. Antennae very slender, long, indistinctly pilose; segment I short and a little stouter and longer than II; III very long, slenderest; IV slightly thicker than III. Rostral channel widening posteriorly, the rostrum moderately long. Bucculae closed in front, areolate. Orifice present. Eyes placed close to pronotum. Pronotum strongly convex,

pitted, unicarinate. Hood rooflike, covering base of head. Paranota narrow, linear. Legs slender. Elytra distinctly lacy, expanded near the base, divided into usual areas; discoidal area short, not reaching middle of elytra.

Type of genus, *Leptopharsa myersi* Drake.

This genus resembles in general appearance very closely *Acysta* Champion but it has a distinct hood. The pronotum is sharply convex and highest at center of disk, unicarinate. The discoidal area is short. These characters will also separate it from *Leptopharsa* Stål. In the latter, the pronotum is more or less transversely convex.

Leptopharsa perbona Drake

Leptopharsa perbona Drake, Amer. Mus. Nov., No. 398: 2. 1930.
Leptopharsa spectabilis Monte, Arq. Inst. Biol. **11**: 290, fig. 7. 1940.

As it is impossible to separate *perbona* Drake and *spectabilis* Monte, the latter name should be placed in synonymy. The species is not very closely related to *G. munda* Stål, either in appearance or structure.

Leptopharsa distinconis Drake

Leptopharsa distinconis Drake, Iowa State Coll. Journ. Sci. **3**: 54. 1928.
Leptopharsa iridis Drake, Amer. Mus. Nov., No. 398: 2. 1930.

Numerous specimens of this insect were collected at Pirassununga, São Paulo, March 30, 1936, and Belém, Pará, October 9, 1938. The variations in these series and other examples make it impossible to distinguish *distinconis* and *iridis* and the latter name is here placed in synonymy.

Leptopharsa satipona, n. sp.

Small, whitish testaceous, the head black, the pronotum darkened. Head with five long, slender, testaceous spines, the hind pair curved downward. Antennae very long, slender, smooth; segment I very long, black, slightly more than three times as long as II; segment II short, black-fuscous; III testaceous, very long, slightly more than twice as long as IV; IV very long, slightly thickened, blackish, with short, pale hairs. Legs testaceous, slender. Rostrum extending slightly beyond mesosternum. Body beneath black.

Pronotum moderately, transversely convex, pitted, tricarinate; collar raised, the marginal row of areolae whitish testaceous; paranota rather narrow, reflexed, oblique, projecting upward, whitish testaceous, biseriate, the outer margin nearly straight, the areolae hyaline; lateral carinae very low; median carina more elevated, not areolate; posterior triangular projection reticulate, pale testaceous. Elytra constricted beyond middle, some of the veinlets fuscous; costal area moderately wide, mostly biseriate, triseriate in widest part, the areolae rather small; subcostal area very narrow, biseriate, the areolae tiny; discoidal area short, narrower in front than behind, widest a little beyond middle, there five areolae deep; sutural area with distal areolae larger and some of the veinlets brownish.

Length, 2.70 mm; width, 1.00 mm.

Type (male), Satipo, Perú, August 9, 1941, P. Paprzycki.

This is one of the very smallest members of the genus. The broad costal area and very long antennae separate it from the other smaller species of the genus.

Stephanitis parana, n. sp.

Moderately large, strongly widening posteriorly, the nervures brownish testaceous, the areolae hyaline and somewhat iridescent. Head, save eyes, concealed by the hood, brownish. Antennae very long, slender, shortly pilose, testaceous, the last segment dark fuscous; segment I moderately stout, long, broadly constricted before apex; II short, one-fourth the length of I; III long, slenderest; IV extremely long, scarcely thicker and three-fourths the length of III. Rostrum long, yellowish, black at tip, practically as long as channel. Legs very long, slender, testaceous. Orifice distinct.

Pronotum slightly convex, pitted, black, the triangular portion areolate and testaceous: lateral carinae present on disk, testaceous, rounded above, with three or four hyaline areolae; median carina very high, practically as high as hood, with top margin rounded, mostly biseriate, with areolae large and hyaline, the marginal nervure and some of transverse veinlets fuscous. Hood moderately large, inflated, extending a little before apex of head, slightly compressed laterally, the areolae hyaline. Paranota very wide, reflexed obliquely upward, the outer margin rounded, the areolae moderately large and hyaline. Elytra divaricating posteriorly, their apices widely separated when at rest the costal margin broadly

rounded; costal area very wide with large areolae, five deep in widest part; subcostal area biseriate adjacent to discoidal; discoidal area short, extending about one-fourth of its length beyond apex of triangular process of pronotum, obovate in shape, three areolae deep in widest part, areolae of sutural area subequal in size to those of costa.

Length, 3.60 mm; width, 2.00 mm.

Type (male), allotype (female), and two paratypes, Pará, Brazil, October 9, 1938, taken by E. J. Hambleton and H. F. G. Sauer.

This species is not easily confused with other members of the genus. The lateral margins of elytra are not clothed with hairs, the antennae indistinctly pilose, the discoidal area less raised or inflated, and the general color of nervures darker than in other Brazilian species.

Corythucha globigera Breddin

Corythucha globigera Breddin, Soc. Ent. **16**: 81. 1901.

Type (male), Santa Inez, Ecuador, R. Haensch, Breddin collection, which was kindly sent us by the late Dr. Walter Horn, of the Berlin Museum. Numerous specimens, Lima, Perú, April 25, 1936.

Hood large, strongly inflated behind, abruptly constricted near the middle and sharply narrowed anteriorly. Elytra with moderately large, tumid elevation, the costal area triseriate. Two spots on each paranotum, one or two spots on tumid elevation, a transverse band near base and another near apex of elytra, dark fuscous; apical band of elytra sometimes more or less obsolete. Hood somewhat infuscated. Median carina about one-third as high as hood, slightly arched in front, mostly uniseriate, usually with two or three areolae divided at highest part; lateral carinae distinct. Margins of paranota, elytra, and some of veinlets of hood, elytra, and median carina beset with short spines.

ENTOMOLOGY.—*Some genera of flies of the family Syrphidae.*[1] FRANK M. HULL, University of Mississippi. (Communicated by ALAN STONE.)

Recent studies of syrphid flies have disclosed several forms that do not appear to belong properly in any present genera. These are based upon undescribed species. In addition, I now find that the fly *Meromacrus vittata* Hull described several years ago should be assigned to a new genus for reasons given below.

Lycopale, n. gen.

Medium-sized flies of the subfamily Eristalinae with bright-yellow, flattened tomentum upon the thorax, bare eyes, and open marginal cell. Antennae short, the third joint oval, with dorsal arista. Front tomentose. Face with abundant pubescence and some pile, obscuring the ground color. Thorax black, pollinose, with thick, rather long, and dense tufts of yellow tomentum along the suture and edge of humerus. Scutellum simple. Abdomen oval, rather convex, the color metallic black, the pile rather appressed and short. Wings with helophiline venation and a prominent dip in the third vein. Anterior margin brown; marginal cell widely open. Legs simple, the hind femora a little thickened and having a patch of spinules at its base.

Genotype: *Meromacrus vittata* Hull.

This genus is related either to *Meromacrus* Rondani through its tomentose pile or to *Helophilus* Meigen through its open marginal cell and vittate thorax. The latter relationship seems more probable. The genus differs considerably in its facies from *Helophilus;* the abdomen is much more convex than in our northern broad and flattened species of that genus, and has besides the same peculiar pile which characterizes *Meromacrus.*

Kryptopyga, n. gen.

Eyes of male very widely separated, the upper half of occiput extraordinarily tumid and swollen but not rounded posteriorly. The rounded, swollen, anterior part ends in a rim that marks the edge of a deep, concave cup. Face practically vertical, a little vertical below. Antennae unusual, very elongate and slender. The first joint is long; the second joint is so short as to be almost overlooked; the third is very long, at least three times as long as the first and densely long, erect pilose on one side; the dorsal arista is practically eliminated, a

[1] Received September 15, 1943.